B14

Family list
12 family members for:
WO9633973
Derived from 10 applications.

1 **1,4-DISUBSTITUIERTE PIPERIDINDERIVATE**
Publication info: **AT269305T T** - 2004-07-15

2 **1,4-disubstituted piperidine derivatives**
Publication info: **AU700837 B2** - 1999-01-14

3 **1,4-disubstituted piperidine derivatives**
Publication info: **AU5513996 A** - 1996-11-18

4 **1,4-DI-SUBSTITUTED PIPERIDINE DERIVATIVES**
Publication info: **CA2218479 A1** - 1996-10-31

5 **1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES**
Publication info: **DE69632728D D1** - 2004-07-22

6 **1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES**
Publication info: **DE69632728T T2** - 2004-10-14

Already cited

7 **1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES**
Publication info: **EP0823423 A1** - 1998-02-11
EP0823423 A4 - 1998-09-02
EP0823423 B1 - 2004-06-16

8 **No English title available**
Publication info: **JP2993124B2 B2** - 1999-12-20

9 **1,4-di-substituted piperidine derivatives**
Publication info: **US5750540 A** - 1998-05-12

10 **1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES**
Publication info: **WO9633973 A1** - 1996-10-31

Data supplied from the ***esp@cenet*** database - Worldwide

B14

世界知的所有権機関
国 際 事 務 局

PCT

特許協力条約に基づいて公開された国際出願

(51) 国際特許分類6
C07D 211/46,211/58,401/12,405/12,409/12,417/12,A61K 31/445,31/505//(C07D 401/12,211:00,213:00)(C07D 401/12,211:00,235:00)(C07D 401/12,207:00,211:00)(C07D 401/12,211:00,239:00)(C07D 405/12,211:00,307:00)(C07D 409/12,211:00,333:00)(C07D 417/12,211:00,277:00)

A1

(11) 国際公開番号 WO96/33973

(43) 国際公開日 1996年10月31日(31.10.96)

(21) 国際出願番号 PCT/JP96/01128
(22) 国際出願日 1996年4月25日(25.04.96)

(30) 優先権データ
特願平7/129827 1995年4月28日(28.04.95) JP

(71) 出願人（米国を除くすべての指定国について）
萬有製薬株式会社
(BANYU PHARMACEUTICAL CO., LTD.)[JP/JP]
〒103 東京都中央区日本橋本町2丁目2番3号 Tokyo, (JP)
(72) 発明者；および
(75) 発明者／出願人（米国についてのみ）
土谷義己(TSUCHIYA, Yoshimi)[JP/JP]
野本貴史(NOMOTO, Takashi)[JP/JP]
大沢浩一(OHSAWA, Hirokazu)[JP/JP]
川上久美子(KAWAKAMI, Kumiko)[JP/JP]
大脇健二(OHWAKI, Kenji)[JP/JP]
錦辺 優(NISHIKIBE, Masaru)[JP/JP]
〒300-33 茨城県つくば市大久保3番地
萬有製薬株式会社 つくば研究所内 Ibaraki, (JP)

(81) 指定国
AU, CA, CN, JP, KR, US, 欧州特許(AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

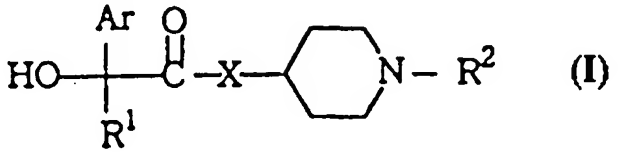
添付公開書類 国際調査報告書

(54) Title : 1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES

(54) 発明の名称 1,4-ジ置換ピペリジン誘導体

(57) Abstract

Novel 1,4-disubstituted piperidine derivatives represented by general formula (I) and pharmaceutically acceptable salts thereof, wherein Ar represents phenyl wherein one or two arbitrary hydrogen atoms on its ring may be substituted by substituent(s) selected from the group consisting of halogeno and lower alkyl or an aromatic



(I)

5- or 6-membered heterocycle having one or two heteroatoms selected from the group consisting of oxygen, nitrogen and sulfur; R^1 represents C_{3-6} cycloalkyl or C_{3-6} cycloalkenyl; R^2 represents saturated or unsaturated aliphatic C_{5-15} hydrocarbon group; and X represents O or NH. The compounds have a selective antagonism against the muscarine M_3 receptor and a high safety with little side effect. Thus they are useful in the treatment or prevention of respiratory diseases such as asthma, chronic respiratory obstruction and pulmonary fibrosis, urological diseases accompanied with urination disorders such as frequent urination, urgency of micturition and urinary incontinence and digestive diseases such as convulsion or motion hyperenergia of the digestive tracts and irritable large intestine.